

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE THE APPLICATION OF)
)
Lawrence J. Terzo) Examiner: Elizabeth D. Wood
)
SERIAL NO. 10/774,302) Art Unit: 1755
)
FILED: February 6, 2004) Docket No. 36194-95262
)
FOR: Concrete Admixture and) Customer No. 23644
Use in Low Temperatures)

**RESPONSE TO NOTIFICATION OF NON COMPLIANT APPEAL BRIEF MAILED
APRIL 6, 2007 AND SUPPLEMENTAL APPEAL BRIEF**

Commissioner of Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

This is an appeal from the final rejection of claims 1, 3, 4, and 7-20 in the Final Office Action mailed on January 26, 2006. A timely Notice of Appeal was filed on July 26, 2006. No claims stand allowed. A Notice of Non-Compliant Appeal Brief was issued on December 19, 2006, to which Applicant responded by filing a supplementary Summary of the Claimed Subject Matter pursuant to MPEP § 1205.03. A second Notice of Non-Compliant Appeal Brief was issued on April 6, 2007, requiring that an entire supplemental brief be filed.

MPEP § 1205.03 states: "When the Office holds the brief to be defective solely due to appellant's failure to provide a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v), **an entire new brief need not, and should not, be filed.** Rather, a paper providing a summary of the claimed subject matter as required by 37 CFR 41.37(c)(1)(v) will suffice." (*Emphasis added*). Applicant respectfully disagrees with the Examiner's request that an entire supplemental brief must be filed to correct the summary of the claimed subject matter.

However, in the interest of advancing the present appeal, Applicant hereby submits the present supplemental brief.

I. Real Party In Interest

The real party in interest in this application is Lawrence J. Terzo of Elk Grove Village, Illinois.

II. Related Appeals and Interferences

No other appeals or interferences are known to Appellant or Appellant's legal representative that will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 1, 3, 4, and 7-20 are pending in this application and have been finally rejected. Claims 2, 5 and 6 have been previously cancelled.

Claims 1, 3, 4, and 7-20 are the claims appealed, and are set forth in the Claims Appendix.

IV. Status of the Amendments

No amendments have been filed subsequent to the final rejection, so that the claims are in the form as examined in the Final Office Action mailed on January 26, 2006.

V. Summary of the Claimed Subject Matter

Claim 1

The invention of claim 1 relates to a method of accelerating setting time of concrete containing fly ash at low temperatures by: (a) preparing a concrete mixture effective at an ambient temperature of less than 60° F (p. 4, line 12) and more than 0° F (p. 4, line 13); and (b) adding an admixture comprising a non-chloride type accelerator and a nitrite-based corrosion inhibitor to a cement (p. 4, lines 12-13), either separately or jointly, to produce a concrete mix with an

accelerated setting time compared to a concrete without the admixture. (p. 4, lines 15-16).

Claim 10

The invention of claim 10 relates to admixture for concrete that is effective at an ambient temperature of less than 60° F (p. 4, line 12) and more than 0° F (p. 4, line 13). The admixture comprising a non-chloride type accelerator and a nitrite-based corrosion inhibitor (p. 4, lines 12-13).

Claim 15

The invention of claim 15 relates to a method of accelerating setting time of concrete containing fly ash at low temperatures by first preparing a concrete mixture effective at an ambient temperature of less than 50° F (p. 6, lines 13-16) and greater than 0° F (p. 4, line 13). Then selecting a non-chloride type accelerator and a calcium nitrite-based corrosion inhibitor (p. 4, lines 22-24). Then adding said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor to said concrete mixture containing fly ash (p. 4, lines 15-16), wherein the amount of said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor are selected to reduce setting time of said concrete mixture (p. 8, lines 13-16).

VI. Grounds of Rejection to be Reviewed on Appeal

1. Whether claims 1, 3, 4, and 7-20 are unpatentable under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

2. Whether claims 1, 3, 4, and 7-20 are unpatentable under 35 U.S.C. § 103 as being obvious over U.S. Publication No. 2003/0127026 to Anderson et al.

VII. Argument

Appellant submits that the claims are definite and particularly point out and distinctly claim

the subject matter of the invention. Also, Appellant submits that the subject matter of the claims is not obvious in view of Anderson et al.

A. The Claims are Definite because they Particularly Point out and Distinctly Claim that which Appellant Regards as His Invention.

Appellant submits that the claims are definite in that they do in fact particularly point out and distinctly claim that which Appellant regards as his invention. The Examiner has rejected claims 1, 3, 4, and 7-20 under 35 U.S.C. § 112, second paragraph because she contends that it is unclear what "effective" means. However, the Examiner admits that a concrete mixture is effective as long as it cures. The invention is directed to a method for curing concrete by accelerating the setting time (i.e. reducing the time needed to cure the concrete) at low temperatures. Therefore, clearly "effective" means curing at low temperatures Appellant submits that the claims would be definite to one skilled in the art because the invention is not merely an effective concrete mixture, but a method of accelerating set time for a concrete mixture at low temperature.

B. Anderson et al. Does Not Teach Combining a Non-Chloride Type Accelerator and a Nitrite-Based Corrosion Inhibitor to Reduce Concrete Set Time.

Appellant submits that the claims are not obvious in view of Anderson et al. because Anderson et al. does not teach combining a non-chloride type accelerator and a nitrite-based corrosion inhibitor to reduce concrete set time at low temperatures. In fact, the Examiner never states that Anderson et al. teaches the claimed elements.

The Examiner has rejected claims 1, 3, 4, and 7-20 under 35 U.S.C. §103(a) as being unpatentable over Anderson et. al. (U.S. Pub. No. 2003/0127026). What the Examiner contends is that it would have been obvious to select **known additives** based on desired concrete properties with the expectation that that they will perform as desired. Furthermore, the Examiner provides no

legal authority or other support for the statement that "[i]t has long been held that there is nothing unobvious in the selection of any number of additives for this reason."

Both the suggestion to make the claimed composition or device or carry out the claimed process and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. *In re Vaeck*, 947 F. 2d 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). The references, viewed by themselves and not in retrospect, must suggest doing what the applicant has done. *In re Shaffer*, 229 F. 2d 476, 108 USPQ 326 (CCPA 1956); *In re Skoll*, 523 F. 2d 1392, 187 USPQ 481 (CCPA 1975).

However, Anderson et al. does not teach an admixture combining a non-chloride type accelerator and a nitrite-based corrosion inhibitor resulting in reduced setting time at low temperatures. Anderson et al. merely teaches corrosion inhibitors generally as being one of many "certain other additives or ingredients" that may be added to a concrete mixture. See Anderson et al. ¶¶ [0159]-[0160]. More specifically, there is no indication in Anderson et al. that the nitrite based corrosion inhibitor, alone or in combination with other additives, has properties other than retarding corrosion of reinforcing steel.

The invention taught by Anderson et al. is a fast setting concrete mixture combining a polycarboxylate water reducer, an accelerator, and a retarder. Anderson et al. teaches that combining an accelerator and a retarder reduces setting time. See Anderson et al. ¶ [0157]. Nothing in Anderson et al. teaches combining a non-chloride type accelerator and a nitrite-based corrosion inhibitor to reduce concrete setting time, at low temperatures or otherwise. Therefore, Appellant maintains that no *prima facie* case of obviousness has been established, because in view of Anderson et al. it would not be obvious for one skilled in the art to expect a reduced setting time at low temperatures by combining a non-chloride type accelerator and a nitrite-based corrosion

inhibitor with a concrete mixture.

VIII. Claims Appendix

1. A method of accelerating setting time of concrete at low temperatures, the method comprising:

(a) preparing a concrete mixture effective at an ambient temperature of less than 60° F and more than 0° F;

(b) adding an admixture to a cement either separately or jointly, to produce a concrete mix with an accelerated setting time compared to a concrete without the admixture, wherein said admixture comprises a non-chloride type accelerator and a nitrite-based corrosion inhibitor.

2. (cancelled)

3. The method of claim 1, wherein the admixture is comprised of about 30% of the non-chloride type accelerator and 70% of the nitrite-based corrosion inhibitor.

4. The method of claim 1, wherein the corrosion inhibitor is calcium nitrite-based.

5. (cancelled)

6. (cancelled)

7. The method of claim 1, wherein the concrete contains at least one filler.

8. The method of claim 7, wherein the filler is a pozzolan.

9. The method of claim 8, wherein the pozzolan is fly ash.

10. An admixture effective in concrete at temperatures of less than 60° F and greater than 0° F, the admixture comprising a non-chloride type accelerator and a nitrite-based corrosion inhibitor.

11. The admixture of claim 10, wherein the admixture comprises about 30% of the non-chloride type accelerator and about 70% of the nitrite-based corrosion inhibitor.

12. The admixture of claim 10 further comprising a filler.
13. The admixture of claim 12, wherein the filler is a pozzolan.
14. The admixture of claim 13, wherein the pozzolan is fly ash.
15. A method of accelerating the setting time of a concrete mixture containing fly ash, the method comprising the steps of:
 - preparing a concrete mixture effective at an ambient temperature of less than 50° F and greater than 0° F;
 - selecting a non-chloride type accelerator;
 - selecting a calcium nitrite-based corrosion inhibitor;
 - adding said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor to said concrete mixture containing fly ash, wherein the amount of said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor are selected to reduce setting time of said concrete mixture.
16. The method of claim 15 wherein said non-chloride type accelerator is added to said concrete mixture in amounts ranging from 3 ounces of accelerator per hundred weight of concrete to 11 ounces of accelerator per hundred weight of concrete, and wherein said calcium nitrite-based corrosion inhibitor is added to said concrete mixture in amounts ranging from 5 ounces of inhibitor per hundred weight of concrete to 22 ounces of inhibitor per hundred weight of concrete.
17. The method of claim 15 wherein said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor are added to said concrete mixture in proportion to each other of about 30 % to 50 % non-chloride type accelerator and about 50 % to 70 % calcium nitrite-based corrosion inhibitor.

18. The method of claim 17 wherein said non-chloride type accelerator and said calcium nitrite-based corrosion inhibitor are combined together before adding to said concrete mixture.
19. The method of claim 1 further comprising the step of pouring the concrete mixture.
20. The method of claim 15 further comprising the step of pouring the concrete mixture.

IX. Evidence Appendix

- A. U.S. Patent Publication 2003/0127026
- B. Section 132 Declaration of Lawrence Terzo with exhibits.

X. Related Proceedings Appendix

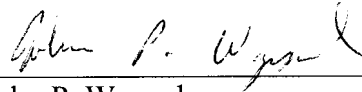
None.

XI. Conclusion

In view of the above, reversal of the rejections is submitted to be in order, and is urged.

Date: 5/4/2007

Respectfully submitted,



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